

#### ABSTRACT

A method for mining association rules in a database that is divided into multiple partitions associated with respective computing nodes. The method includes transmitting messages among the nodes with respect to local support of an itemset in the respective partitions of the database. Responsive to the messages transmitted by a subset of the nodes, the itemset is determined to be globally frequent in the database before the nodes outside the subset have transmitted the messages with respect to the local support of the itemset in their respective partitions. An association rule is computed with respect to the itemset, responsive to having determined the itemset to be globally frequent.